Remarks

The office action mailed February 7, 2007, has been carefully reviewed and these remarks are responsive thereto. Claims 1-14, 17-37 and 39-43 are pending. Applicant herein amends claims 1, 12, 21, 23 and 39-41 and cancels claim 20.

The office action rejected claims 1-14, 17-19, 21-37 and 39-43 under 35 U.S.C. §101, asserting that the claimed invention is directed to non-statutory subject matter. In particular, the office action states the following at page 2:

> Method claims 1-14, 17-19, 30-36 and system claims 20-29, 37, 39-43 define non-statutory processes because they merely manipulate an abstract idea (mathematical algorithm) without a claimed limitation to a practical application. If the acts of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter (Benson, 409 U.S. at 71-72, 175, USPQ at 676). Furthermore, claims define nonstatutory processes if they simply manipulate abstract ideas (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759). Lastly, in evaluating claims in view of 35 U.S.C. 101, the "limited to the technical arts" test is no longer valid (see Annex III of the Interim Guidelines).

Applicant respectfully traverses, as claims 1-14, 17-19, 21-37 and 39-43 are clearly directed to statutory subject matter: processing data that represents audio signals or devices configured to perform such processing.

The office action contends the claims are non-statutory because they are purportedly directed to subject matter ("merely manipulat[ing] an abstract idea") which falls within a judicial exception to 35 U.S.C. §101. See MPEP §2106(IV)(C). As stated in MPEP §2106(IV)(C)(1), however,

> The conclusion that a particular claim includes a 35 U.S.C. 101 judicial exception does not end the inquiry because the practical application of a judicial exception may qualify for patent protection. ***"It is now commonplace that an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection."*** [citations omitted, emphasis added]

As further explained in MPEP §2106(IV)(C)(2), "A claimed invention is directed to a practical application of a 35 U.S.C. 101 judicial exception when it ... produces a useful, concrete and tangible result..."

Applicant's claims are clearly directed to inventions that produce a useful result. As explained in MPEP §2106(IV)(C)(2)(2)(a),

> For an invention to be "useful" it must satisfy the utility requirement of section 101. The USPTO's official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial and (iii) credible.

As stated in Applicant's specification at paragraph [0002], "[t]his invention relates to the concealment of transmission errors occurring in digital audio streaming applications and, in particular, to a beat-detection error concealment process." The remainder of the specification further elaborates on this utility. As discussed below, the language of the claims ties those claims to processing of audio data or to devices configured to carry out processing of audio data.

Applicant's claims are also clearly directed to inventions that produce a tangible result. As explained in MPEP §2106(IV)(C)(2)(2)(b),

> The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a 35 U.S.C. 101 judicial exception, in that the process claim must set forth a practical application of that judicial exception to produce a real-world result. [citation omitted]

All of Applicant's independent claims recite a practical application to produce a real-world result - processing of (or devices configured to process) ***audio*** data. For example, claim 1 recites "formatting a stream of *audio data provided by an audio source* into a sequence of audio data intervals" (italics added). The remaining steps in claim 1 recite further processing of that data, which data represents *audio* and is not some abstract entity. Claims 12, 21 and 39-41 each recites "receiving transform-encoded *audio data* intervals of a sequence of transform-encoded *audio data* intervals, each of the intervals having a plurality of transform coefficients, wherein less than all of the intervals are transient intervals, *and wherein each of the transient intervals corresponds to an audio segment that includes a beat*" (italics added). Claim 23 recites "an audio source for providing audio streaming information, the audio source including an encoder for converting the audio streaming information into a sequence of coded audio data intervals" and "a receiving terminal for converting the sequence of coded audio data intervals into the audio sample."

Finally, Applicant's claims are clearly directed to inventions that produce a concrete result. As explained in MPEP §2106(IV)(C)(2)(2)(c),

> Another consideration is whether the invention produces a "concrete" result. Usually, this question arises when a result cannot be assured. In other words, the

> process must have a result that can be substantially repeatable or the process must substantially produce the same result again. *In re Swartz*, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is "irreproducible" claim should be rejected under section 101). The opposite of "concrete" is unrepeatable or unpredictable. Resolving this question is dependent on the level of skill in the art. For example, if the claimed invention is for a process which requires a particular skill, to determine whether that process is substantially repeatable will necessarily require a determination of the level of skill of the ordinary artisan in that field. An appropriate rejection under 35 U.S.C. 101 should be accompanied by a lack of enablement rejection under 35 U.S.C. 112, paragraph 1, where the invention cannot operate as intended without undue experimentation.

All of Applicant's claims are directed to processes or devices which are clearly enabled by the specification and drawings, and for which the office action has raised no enablement or repeatability concerns.

Accordingly, and as explained above, claims 1-14, 17-19, 21-37 and 39-43 are clearly directed to statutory subject matter. The office action indicated that these claims are allowable over the prior art of record.

The office action rejected claim 20 under 35 U.S.C. §102(e) based on U.S. Patent 6,766,300 (Laroche). As claim 20 is canceled herein, this rejection is now moot.

It is respectfully submitted that this application is in condition for allowance. Should the Examiner believe that anything further is desirable in order to place the application in even better form for allowance, the Examiner is invited to contact Applicant's undersigned representative at the below-listed number.

Respectfully submitted,

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